What is claimed is:

1. A semiconductor element, comprising:

a substrate,

an underlayer, on the substrate, made of a first semiconductor nitride including at least Al element, the crystallinity of the underlayer being set to 90 seconds or below in full width at half maximum of X-ray rocking curve,

a buffer layer, on the underlayer, made of a second semiconductor nitride, and

a semiconductor layer group, on the buffer layer, made of a third semiconductor nitride including at least Ga element,

the Al content of the third semiconductor nitride being set smaller than that of the first semiconductor nitride.

2. A semiconductor element as defined in claim 1, wherein the Ga content of the second semiconductor nitride is set not more than that of the third semiconductor nitride.

3. A semiconductor element as defined in claim 1, wherein the Al content of the first semiconductor nitride is set 50 atomic percentages or over for all of the III elements.

4. A semiconductor element as defined in claim 3, wherein the first semiconductor nitride is AlN.

5. A semiconductor element as defined in claim 1, wherein the underlayer is formed at 1100°C or over by a MOCVD method.

6. A semiconductor element as defined in claim 5, wherein the underlayer is formed within 1100-1250°C.

7. A semiconductor element as defined in claim 1, wherein the thickness of the underlayer is set within 0.5-1000 μm.

8. A semiconductor element as defined in claim 1, wherein the substrate is made of sapphire single crystal, and the underlayer is formed on the main surface of the substrate via the surface nitride layer formed at the main surface.

9. A semiconductor element as defined in claim 1, wherein the thickness of the buffer layer is set within 0.002-0.5 μm.

10. A semiconductor element as defined in claim 1, wherein the Al

content of the first semiconductor nitride is decreased continuously or stepwisely from the substrate toward the buffer layer.

11. A semiconductor element as defined in claim 1, wherein the semiconductor layer group includes a GaN semiconductor layer.

12. A semiconductor element as defined in claim 1, wherein the full width at half maximum in X-ray rocking curve of the semiconductor layer group is set to 150 seconds or below.

13 A photonic device comprising a semiconductor element as defined in any one of claims 1-12.